

"Does Site Matter? Comparing patient comfort and accuracy of blood glucose samples from the finger and palm of the perioperative patient."

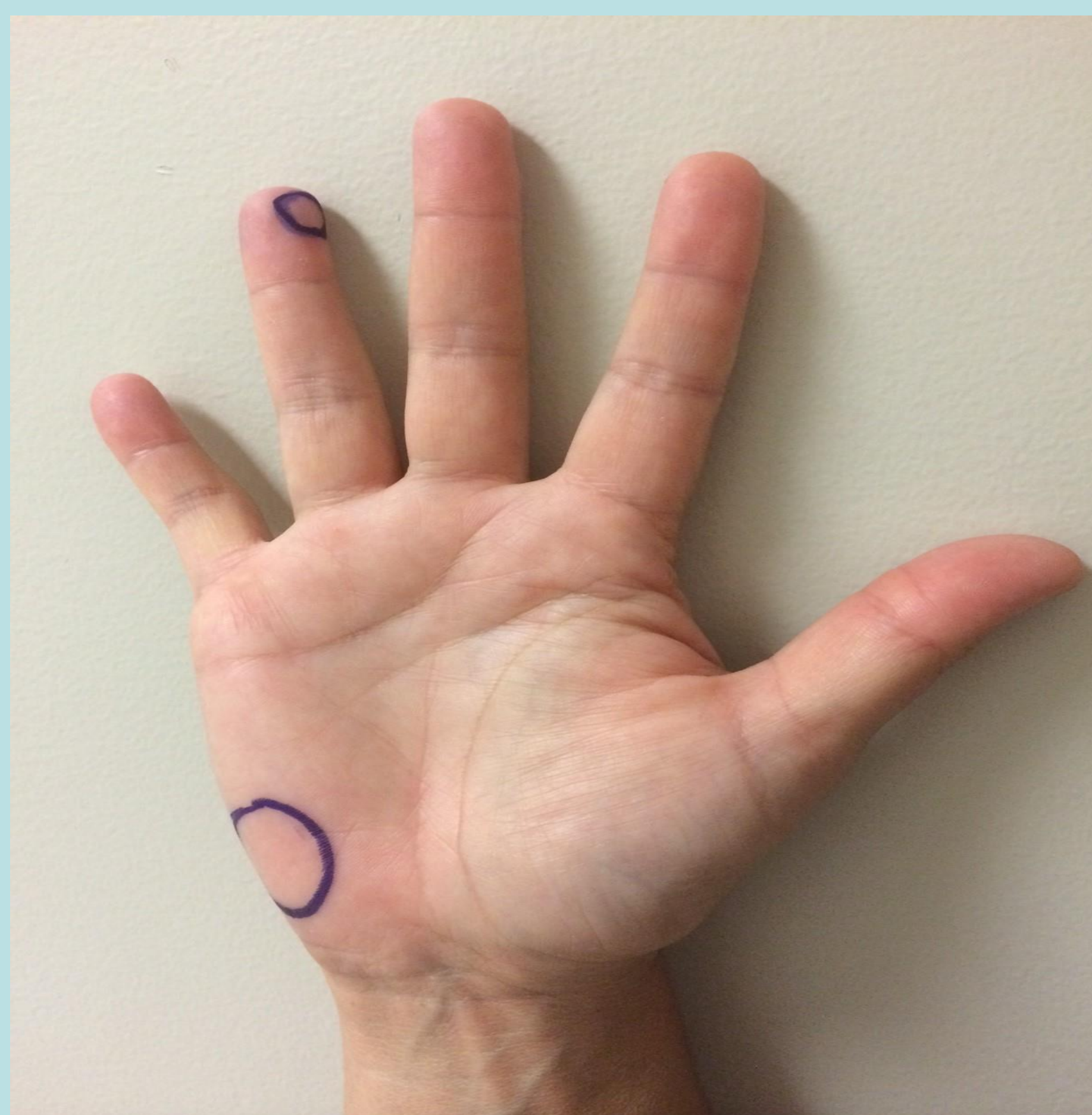
Clara Winfield, BSN, RN, CAPA; Lisa Farmer, BSN, RN, CAPA; Paula Schenck, RN David Pollak, RN; Patricia Finneran, BSN, RN; Paige Nealy, RN; Cynthia McCaskill, BSN, RN, CAPA

Introduction

Obtaining blood glucose samples via finger stick is a standard practice in most clinical settings. However, some patients use alternative sites to test (AST) blood glucose level with reports of less pain.

Purpose

- 1) To compare pain of obtaining blood glucose via finger stick (standard practice) with that from an alternative site test (AST), palm of the hand.
- 2) To compare the accuracy of the blood glucose result obtained from the AST with standard practice.



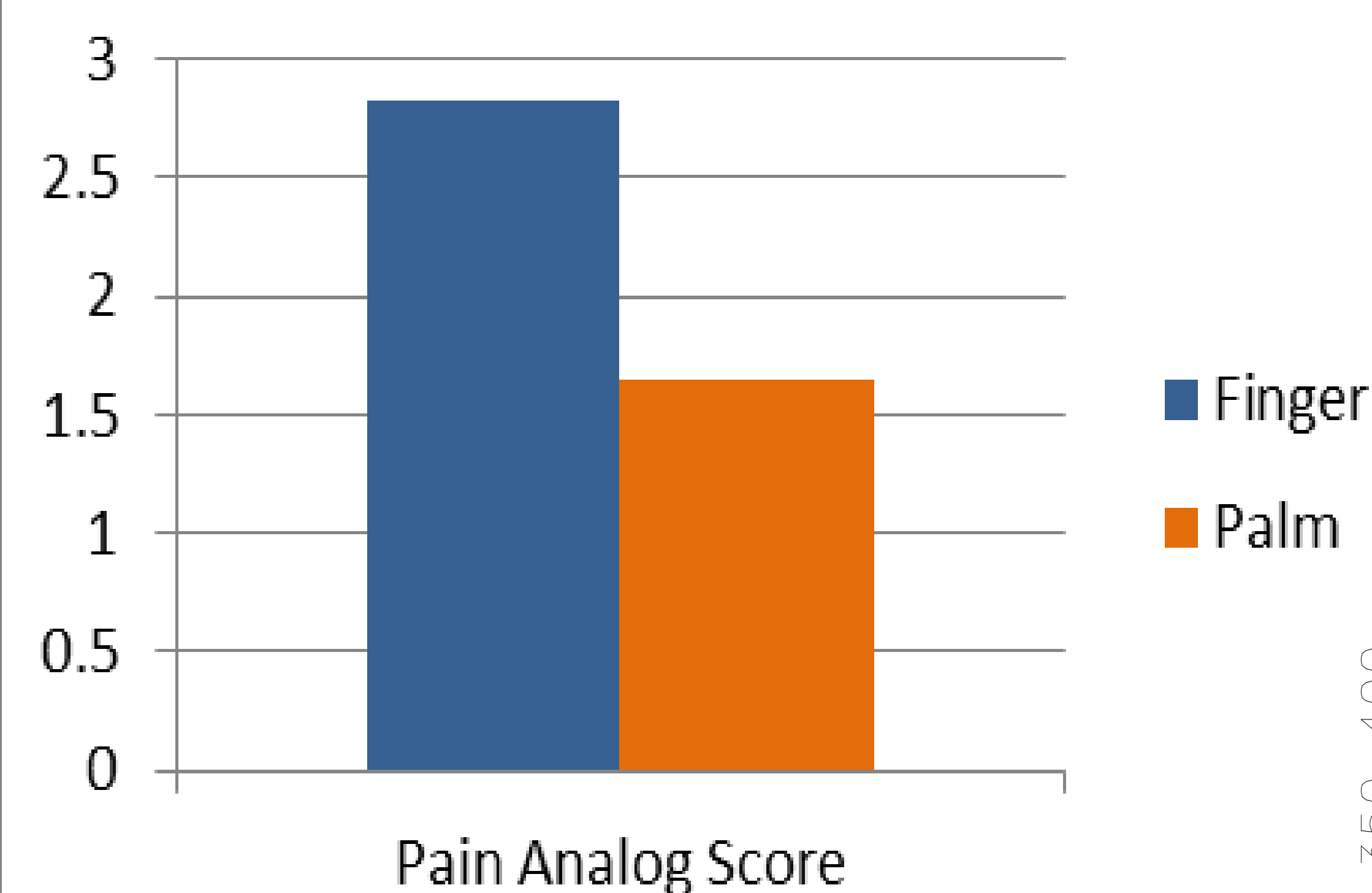
Methods

- Prospective randomized control study
- Subjects served as their own controls and received both methods of blood glucose sampling with randomization determining which site sampling was performed first
- Blood glucose samples were obtained from subjects using point of care testing device manufacturer recommendations (Accucheck Inform II, Safe-T Pro lancets).
- Subject demographics, diabetic/site sampling history, pain experience (rating 0-10), and both glucose results were documented.

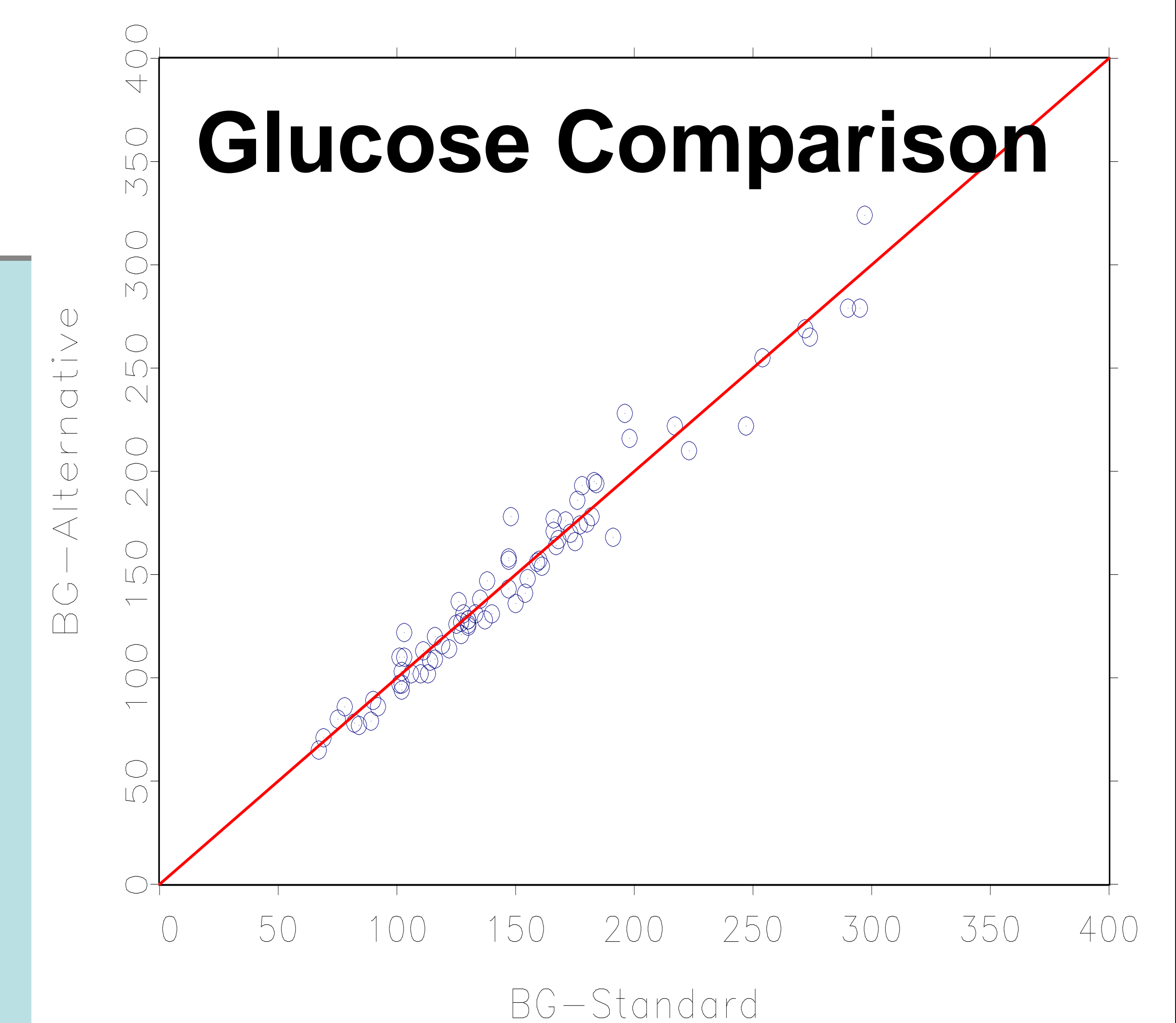
Results

- 81 patients enrolled (49% male, 51% female) with a mean age of 61 years
- There was a significant difference between mean pain analog scale (PAS) score of 2.83 for standard practice and a mean PAS score of 1.65 for the AST group ($p < 0.001$)
- The mean glucose value for standard site was 150 mg/dl compared to 149 mg/dl with AST
- There was no significant difference in glucose measurements between standard care and intervention (correlation=0.9815, $R^2=0.9633$, 95%CI -2.1, 2.8)

Pain Comparison



Glucose Comparison



Conclusions and Implications for Practice:

The findings of this study support alternative site testing as an accurate and less painful method of obtaining blood glucose results on diabetic patients. These findings may be generalized to any practice setting where point of care testing for blood glucose is performed.